



June 20, 2012

RINKER MATERIALS
CONCRETE PIPE DIV
DANIEL THOMSON
PO BOX PO BOX 0304
HALES CORNERS WI 53130-0304

Re: Description: STORMWATER TREATMENT DEVICE
Manufacturer: RINKER MATERIALS
Product Name: STORMCEPTOR
Model Number(s): STC-16000
Product File No: 20120208

The specifications and/or plans for this plumbing product have been reviewed and determined to be in compliance with chapters SPS 382 through 384, Wisconsin Administrative Code, and Chapters 145 and 160, Wisconsin Statutes.

The Department hereby issues an approval based on the Wisconsin Statutes and the Wisconsin Administrative Code. **This approval is valid until the end of June 2017.**

This approval is contingent upon compliance with the following stipulation(s):

- Any wastewater or waste materials (e.g., sludge, or scum) withdrawn from these systems must be disposed of in accordance with ch. NR 113.
- The manhole (entry) openings for these systems shall be a minimum of 23 inches in the least dimension. The inspection ports for these systems shall be a minimum of three inches in the least dimension.

Inspection ports and manhole openings for systems, located below ground, shall extend to a minimum of the finished grade. Inspection, servicing and maintenance openings for these systems shall terminate with a means that prevents entrance of deleterious materials.

Covers for these systems located at, or above, grade for openings larger than eight inches in the greatest dimension shall be provided with locking devices. These locking devices shall remain locked except for inspection, servicing or maintenance purposes.

- Prior to installation of this product, plans and specifications must be submitted to the department or to an approved agent municipality for review and approval in accordance with s. DPCS 382.20 (1) of the Wis. Admin. Code. Written approval for the plans and specifications shall be obtained prior to installation of the product.
- This product is approved for the following uses:
 - Stormwater and clearwater subsurface detention system,
 - Stormwater and clearwater subsurface infiltration system, or
 - Stormwater and clearwater subsurface detention/infiltration system
- The review undertaken by department staff does not include review and/or approval of this submittal as meeting DNR specifications for ch. NR 151.
- When this product is installed, the installation must be in accordance with the manufacturer's printed design installation instructions, ch. DPCS 382, plan approval under s. DPCS 382.20, and any product approval stipulations. When there is a conflict between manufacturer's installation instructions and plan approval conditions or product approval stipulations, the plan approval conditions or product approval stipulations will take precedence.

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- **Installation--** Installation of this product must be in accordance with the manufacturer's printed installation instructions. A copy of the manufacturer's installation instructions must be given to the property owner, installer and submitted along with other information required by the governing agency for the installation.
- **Labeling--** This product must be permanently labeled identifying the manufacturer and model number, as specified below:
 - The Stormceptor name and Cretex logo are cast into the cast-iron manhole frame and lid.
 - The component piece of the manhole shall include stenciling in blue paint of the Stormceptor name (and their Water Flow logo).
 - In addition, a metal ID tag shall be affixed in the interior weir so listing the Stormceptor name and unique serial/model number. (The model number corresponds to the maximum capacity in gallons.)
- **Water tightness--** All concrete joints shall be oil resistant and watertight meeting ASTM C-443 standard. Pipe sealants, lubricated gaskets, and boots, meeting testing as per ASTM 923-7.1 and 7.2.3, are as recommended by the manufacturer, see: www.stormceptor.com.
- **Inspection and maintenance--** Inspection(s) shall be performed at intervals specified by the manufacturer or as described in the individual approved plumbing plan. Maintenance shall be performed initially annually and may be adjusted once the sediment depth and oil accumulation reaches the depth as listed in Table 3, Sediment Depths Indicating Required Maintenance, Stormceptor System Owner's Manual (Rev. 3/2006). If the individual maintenance plan is more stringent, it shall take precedence.
- **Bypass--** In order to prevent scour and resuspension, all installations shall be maintained in such as manner that an overflow bypass is operational for infrequent high flows in excess of design capacity.
- **Description--** The Stormceptor oil and grit separator is a vertically-oriented, 2-compartment, concrete cylinder with a fiber reinforced plastic chamber separator with an overflow/bypass.
- **Limitations--** This approval is limited to the Stormceptor grit and oil separators contained in pre-cast concrete risers. As of the date listed above, no Stormceptor models contained in cylinders made of fiberglass (or other materials) have been submitted for review and approval.
- This product is expected to produce an effluent that has less than 60 mg/L TSS (total suspended solids) for subsurface infiltration/irrigation with stormwater as the source when the influent bulk TSS concentration is 80 mg/L or less and the maintenance meets the conditions listed in Table SC-1.

Based on full-scale testing (a), this model is expected to produce approximately 75% TSS removal under the conditions specified in Table SC-1.

Table SC-1
Stormwater and Clearwater Treatment (a)
At Maximum Flow for Stormceptor SC-16000*

INFLUENT			EFFLUENT	
Maximum Flow in cu. ft./sec.	Suspended Solid Concentration	Average Particle Size of Influent	Suspended Solid Concentration	Maintenance Interval Months
5.12	295 mg/L	97 um (b)	75.25 mg/L	12 (c)

(a) Based on full-scale testing on model SC-900 for NJCAT and using scaling formula based on surface area and Expert System Ver. 2.0. This approval does not take into consideration any pre-treatment devices installed upstream or downstream of this product in an approved stormwater detention, conveyance or subsurface

Infiltration plumbing system.

(b) Where the average specific gravity is 2.65 and where 45% particles are < 25 um.

(c) See Table 3, Sediment Depths Indicating Required Maintenance, Stormceptor System Owner's Manual (undated).

* Model STC-16000 is two model 7200.

- This product is expected to produce an effluent having values for Free Oil as listed in Table SC-2, when the influent flow and loads meet the conditions as listed.

Table SC-2
Stormwater and Clearwater Treatment (a)
for Free Floatable Oil for the Stormceptor SC-16000*

INFLUENT			EFFLUENT
Maximum Flow in Cu. Ft./sec	Specific Gravity of Material	Concentration in mg/L	Concentration in mg/L
5.12	0.916	36 mg/L	30 mg/L

(a) Based on testing conducted on the STC-900 with olive oil as the free floatable oil using (range of 60-95% removal rate) geometric mean of 82% removal rate to attain concentration levels as listed in Table Comm 82.70-1.

* Model STC-16000 is two model 7200.

- **Note: Information on how to access SLAMM and P8 and the average annual rainfall files for five locations in the state, as published periodically by the department, is available at: <http://dnr.wi.gov/runoff/models/index.htm> or by contacting the WDNR storm water management program at (608) 267-7694.**
- **Pollutant loading models such as DETPOND, SLAMM, P8 or equivalent methodology may be used to evaluate the efficiency of the design in reducing total suspended solids. Information on how to access these models is available at: <http://dnr.wi.gov/runoff/models/index.htm> or by contacting the WDNR storm water management program at (608) 267-7694.**
- Additional information is included as attachment(s) to this letter; see attachment A.

This approval supersedes the approval issued on 5/10/2007 under product file number 20060218.

This approval letter shall be incorporated with your previously approved plans and/or specifications approved under product file number #20060218.

The department is in no way endorsing this product or any advertising, and is not responsible for any situation which may result from its use.

Sincerely,

Jean M. MacCubbin, CST

Engineering Consultant--Plumbing Products Review

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